Beam Power Tube

NOVAR TYPE

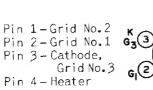
For Horizontal-Deflection-Amplifier Service in Black-and-White TV Receivers

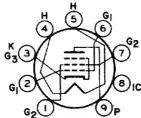
Electrical:

Heater Characteristics and Ratings:	
Voltage (AC or DC) 6.3 ± 0.6	volts
Current at heater volts = 6.3 1.200	amp
Peak heater-cathode voltage:	
Heater negative with respect to cathode, 200 max.	
Heater positive with respect to cathode, 200ª max.	volts
Direct Interelectrode Capacitances (Approx):b	
Grid No.1 to Plate 0.26	pf
Input: G1 to (K+G3,G2,H) 15.0	pf
Output: P to (K+G3,G2,H) 6.5	pf

Mechanical:

Operating Position Any
Type of Cathode Coated Unipotential
Maximum Overall Length 2.880"
Seated Length 2.250" to 2.500"
Diameter 1.438" to 1.562"
Dimensional Outline See General Section
Bulb 112
Base Large-Button Novar 9-Pin with Exhaust Tip
(JEDEC NO. E9-88)
Basing Designation for BOTTOM VIEW 9NZ





Pin 5 - Heater Pin 6 - Grid No.1 Pin 7 - Grid No.2 Pin 8 - Do Not Use Pin 9 - Plate

Characteristics, Class A_i Amplifier:

•	Triode Connection	Pentode Connection		
Plate Voltage Grid-No.2 Voltage Grid-No.1 Voltage	150 150 -22.5	150	150	
Amplification Factor Plate Resistance (Approx.) Transconductance	4.4 - -		15000 7100 70	,
Plate Current Grid—No.2 Current Grid—No.1 Voltage (Approx.)	~		2.1	ma
for plate ma = 0.1	-		- 42	volts

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame sys	stem ^e	
bo , rate supply to range to the termination of the	max. volts	
Peak Positive-Pulse Plate Voltage 6500	max. volts	
Peak Negative—Pulse Plate Voltage 1500		
be at the field (solvest divisit to the	max. volts	
Do di la mora (domeno, di la) la dia	max. volts	
Peak Negative—Pulse Grid—No.1 Voltage 330	max. volts	
Cathode Current:		
Peak	max. ma	
nivorago.	max. ma	
all to those this are a second	max. watts	
Plate Dissipation 17.5	max. watts	
Bulb Temperature (At hottest point	_	
on bulb surface) 240	max. oc	

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:
For grid-resistor-bias operation . . . 1 max. megohm

a The dc component must not exceed 100 volts.

b Without external shield.

c with grid No. 2 connected to plate.

d This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

f This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

 $[\]boldsymbol{9}$ An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

AVERAGE CHARACTERISTICS

